REMARKS

Claims 6-8 are pending. Claims 4 and 5 have been cancelled without prejudice. Claims 6 and 7 have been amended. No new matter has been introduced. Reexamination and reconsideration of the application are respectfully requested.

In the February 16, 2001 Office Action, the Examiner rejected claims 4-8. The Examiner rejected claims 4-8 under 35 U.S.C. §112, second paragraph, as being indefinite. The Examiner rejected claims 6 and 7 as being duplicative. The Examiner rejected claim 4 as being anticipated by U.S. Patent No. 5,663,941 to Aoshima (the Aoshima reference).

The present invention relates to a system and method of recording information on an optical disk utilizing a mark-length recording scheme. Tracking control is performed using tracking error signals detected during an OFF period and a rear time segment within an ON period of a recording pulse signal. The time segment for detecting the tracking error signal within the recording pulse ON period is variably controlled in accordance with recording conditions, such as a disk type and recording speed.

The Examiner determined that species (b), as elected by the applicant, is disclosed on pages 30-32 of the specification. The Examiner stated that as found therein, there is an offset capability predicated on stored information indicative of optimum offset values – element 64, which is not found in the elected claims. Claims 4 and 5 have been canceled, and all of the pending claims are directed to the embodiment as disclosed on pages 30-32 of the specification. More specifically, independent claims 6 and 7 recite:

an offset imparting section that imparts *an offset* to the tracking signal;

a storage section that stores information indicative of *optimum offset values* corresponding to various possible recording conditions; and

a control section that reads out one of the *optimum offset values* corresponding to current recording conditions and sets the *offset*, to be imparted by said offset imparting section, to the read-out *offset value*, and performs tracking control using the tracking signal having the *offset* imparted thereto.

Applicant respectfully submits that independent claims 6 and 7 recite the "offset capability" as disclosed on pages 30-32 of the specification.

The Examiner rejected claims 6 and 7 as being duplicative. Independent claims 6 and 7 have been amended to more clearly define the scope of the present invention.

Independent claim 6, as amended, recites:

a tracking signal generating section that sequentially outputs a detected tracking error signal during a particular period when a recording pulse signal is in an OFF state or no pit is being formed, and that, during a period other than said particular period, either holds a level of the tracking error signal detected immediately before said period or outputs a zero-level tracking error signal, said tracking signal generating section smoothing the tracking error signal to thereby provide the smoothed tracking error signal as a tracking signal;

an *offset imparting section* that imparts an *offset* to the tracking signal;

a *storage section* that stores information indicative of *optimum offset values* corresponding to various possible recording conditions; and

a *control section* that reads out one of the *optimum offset values*

corresponding to current recording conditions and sets the *offset*, to be imparted by said offset imparting section, to the read-out offset value, and performs tracking control using the tracking signal having the *offset* imparted thereto.

The Aoshima reference is directed to an optical disk recording device for forming a pit on an optical disk by projecting a recording laser beam of an amount corresponding to a pit length of the pit to be formed. The recording device includes a recording speed increase ratio setting section for setting a recording speed increase ratio, a rotation control section for rotating the optical disk at the set recording speed increase ratio, and a laser power control section for controlling laser power of the recording laser beam in a pit period and laser power of the recording laser beam in a bottom period in such a manner that both the laser power in the pit period and the laser power in the bottom period will be increased as the set recording speed increase ratio is increased. When a recording is made at a higher recording speed, not only the pit power but also the bottom power of the recording laser beam is increased. Accordingly, the difference between the pit power and the bottom power is reduced as compared to a situation where only the pit power is increased. Therefore, an adequate time is made available for detection of a tracking error, and deterioration of the signal-to-noise ratio of a wobble signal can be prevented.

The Aoshima reference does not disclose, teach, or suggest the optical disk recording device of independent claim 6, as amended. Unlike in independent claim 6, as amended, the Aoshima reference does not show an *offset imparting section* that imparts an *offset* to the tracking signal, a *storage section* that stores information indicative of *optimum offset values* corresponding to various possible recording

conditions, and a *control section* that reads out one of the *optimum offset values* corresponding to current recording conditions and setting the *offset*, to be imparted by said offset imparting section, to the read-out offset value, and perform tracking control using the tracking signal having the *offset* imparted thereto. The Aoshima reference only teaches that a tracking error signal may be applied to a driver though a sample hold circuit and a filter to drive a tracking actuator in the optical head to perform tracking control. (Col. 4, lines 57-61.) Accordingly, applicant respectfully submits that independent claim 6, as amended, distinguishes over the above-cited reference.

Independent claim 7, as amended, recites, among other elements:

> a *tracking signal generating section* that sequentially outputs a *tracking error detection signal* during a *particular period from a given time point within a recording signal ON period after formation of a pit is initiated in response to turning on a recording pulse signal and a reflection of the light beam from the optical disk passes a peak level to a subsequent time point when the recording pulse signal is next turned on*, and that, during a period other than said particular period, either holds a level of the tracking error signal detected immediately before said period or outputs a zero-level tracking error signal, said tracking signal generating section smoothing the tracking error signal to thereby provide the smoothed tracking error signal as a tracking signal.

Independent claim 7, as amended, recites limitations similar to independent claim 6, as amended. Accordingly, applicant respectfully submits that independent claim 7, as amended, distinguishes over the above-cited reference for the reasons set forth above with respect to independent claim 6, as amended.

Moreover, independent claim 7, as amended, further distinguishes over the Aoshima reference. The Aoshima reference also does not disclose a *tracking signal generating section* that sequentially outputs a *tracking error detection signal* during a *particular period from a given time point within a recording signal ON period after formation of a pit is initiated in response to turning-on of a recording pulse signal and a reflection of the light beam from the optical disk passes a peak level to a subsequent time point when the recording pulse signal is turned on next.* As acknowledged by the Examiner, the Aoshima reference only "provides for a tracking error signal system, in which during periods of no recording, no beam power, a tracking error signal is developed, and that during other periods a held value[s] is provided for." (Office Action, page 3, paragraph No. 6.) In other words, the Aoshima reference teaches that the sampling period only occurs while there is a period of no beam power and no recording. The optical disk recording device of independent claim 7, as amended, differs from the Aoshima reference because it outputs a *tracking error detection signal* during a *particular period from a given time point within a recording signal ON period after formation of a pit is initiated*, that is, while the recording signal is still in an ON period, whereas the tracking error signal is formed in the Aoshima reference only during the recording OFF period. Accordingly, applicant respectfully submits that independent claim 7, as amended, further distinguishes over the above-cited reference.

Claim 8 directly depends from independent claim 7, as amended. Accordingly, applicant respectfully submits that claim 8 distinguishes over the above-cited reference for the reasons set forth above with respect to independent claim 7, as amended.

Applicant believes that the foregoing amendments place the application in

condition for allowance, and a favorable action is respectfully requested. If for any reason the Examiner finds the application other than in condition for allowance, the Examiner is requested to call either one of the undersigned attorneys at the Los Angeles telephone number (213) 488-7100 to discuss the steps necessary for placing the application in condition for allowance should the Examiner believe that such a telephone conference would advance prosecution of the application.

Respectfully submitted,

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